

# LOAD AND MATCHING CIRCUIT HAVING ELECTRICALLY CONTROLLABLE FREQUENCY RANGE

## Abstract

A first inductor or resistor has a first terminal connected to a first node and a second terminal connected to a supply node or AC ground node. The first node is a first point of connection between a first circuit and a second circuit. A first varactor has a first terminal connected to the first node and a second terminal connected to a control signal. An optional control signal generator generates the control signal according to the C-V curve of the first varactor in order to adjust the capacitance of the first varactor, optimize the energy transfer between the first circuit and the second circuit and also can match the output impedance of the first circuit to the input impedance of the second circuit.